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ABSTRACT

Social Building is a program at UCLA that entails management approaches to the design of facilities and urban settings. This report is the result of a study team closely examining four high schools in Los Angeles. The subject of this study is an examination of the relationship between the setting in which schooling is undertaken and education. Process design is presented as analogous to research-in-action where a lore about "what might work" is accumulated in the process of trying to do something responsive. This method is contrasted with traditional design. The final chapter gives examples of applying process design to the change process in humanizing the school system. (HLP)

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SAUP 496 Case Study in Process Design
George Rand/Professor

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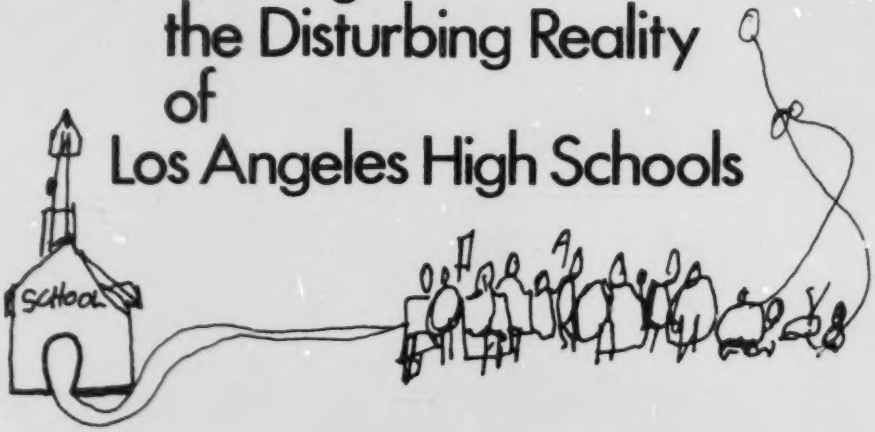
Disturbing the Disturbing Reality of Los Angeles High Schools



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January 1977
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PREFACE

Everyone seems to be in favor of change in education, but when it comes to putting words into practice, there are always enough excuses to go around. Usually, the excuses are something nebulous like, "I can't do it because someone else won't let me" or "I can't get the agreement of so-and-so". Nobody is ever on the hook.

The best way to take away some of those excuses and put everyone on the hook is to create a more open system of alternatives in education. The 13 ideas suggested here are some alternatives which could be implemented in the next six months if a school system wanted to. They offer the opportunity to introduce significant change without threatening anyone or demanding additional resources.

Alternatives are different from other kinds of change strategies. In retrospect, one of the most detrimental aspects of experimental ventures in education has been the so-called pilot and demonstration ventures. Anytime a pilot is undertaken, anyone who doesn't like it has a vested interest in "doing it in", because if it succeeds he is threatened.

The notion of alternatives should be viewed in a completely different context from demonstrations. The essential difference between the two is that alternatives should threaten no one. Alternatives exist because people voluntarily choose to participate. The only people an alternative would interest are individuals or groups who find that alternative intrinsically

appealing. It is a spirit of coexistence, of options, rather than the idea that if we find a new way the old way dies.

Additional money is not needed to experiment, nor are schools going to be able to get it today. All the ideas mentioned here are strategies which can be adopted within the present resources of a school district by some minor reallocations. These suggestions should be taken as general ideas rather than as detailed proposals.

One of the significant weaknesses of most strategies of educational change is the preoccupation with pre-planning. Our tradition is to establish all sorts of planning mechanisms, plan up a storm, and then have only a little energy left over for correcting our mistakes. Also, once we have implemented our plans, we have so much invested in the direction of that implementation that it is really hard to change. To change takes another huge planning session, and that is just terribly difficult to come up with. Knowing that this is such a problem we plan even more feverishly to make sure the initial direction is right.

This model of change is equivalent to trying to hit the moon with a rocket aimed entirely from the ground. That is tough; but if you add the idea of in-flight correction, you can launch the rocket in the general direction of the moon. After you see where you are headed, in-flight corrections enable you to hit the target.

Educators would do well to put new ideas into practice in the same way--with a minimum of pre-planning and lots of energy left over for implementation. If there isn't a huge psychological investment in the original direction, then it will take less energy to change it later.

With all of this in mind, here is a list of 13 alternatives a school district could try. They are not presented in any particular order of importance, simplicity, or feasibility.

1

One: This suggestion could be put in practice next Monday. Simply send out a memorandum to all schools in the district authorizing any student to spend up to half of his time studying in one subject area, providing he can find a teacher who will agree to supervise that study as an overload. There is no additional money, but if a student can talk a teacher into supervising him, that's okay.

Now, there is a bit of a snooker in there for teachers, because what teacher can resist a kid who comes up and says "I want to spend half of my time with you?" We're saying to the teacher, "You are free to accept or reject it, but if a kid has a burning interest or desire in a particular curriculum area and you choose to supervise his work, you're off".

2

Two: Send out a memo saying that any student who is failing or getting a D in any course will be allowed to select a different teacher. We can't let everybody select their teachers, because that kind of popu-

larity contest is not something we want to encourage; but if everyone can't do this, then at least we ought to let those people for whom it will most likely make a difference choose their teachers. If the disaffected kids pick their own poison, they are more on the hook than if we arbitrarily assign them. This, too, can be done next Monday morning.

Three: Allow optional attendance for any student who has Bs or better. In other words, a student who can achieve an adequate level of academic achievement should be rewarded by being given the responsibility for his own decision making. Anytime the student's achievement falls below that level, attendance will be required again.

Four: Any student who wishes to offer evidence that he/she has learned something in the formal curriculum by non-formal means will be given credit upon the presentation of convincing evidence of the fact to a certified teacher, without specifying what the evidence has to be beforehand. Instead of setting up elaborate testing mechanisms, this alternative leaves the burden of proof with the kids.

Five: Another suggestion is to allow self-contained alternative programs to be developed within a school. A group of teachers and/or students wishing to get together and set up a program which is atypical and does not demand resources beyond what are normally available should be allowed to do so upon approval of the appropriate body. Participation by students (after

approval by their parents) and staff in the alternative program would be voluntary. If it is a legitimate alternative to what already exists, then it should be given license and resources for as long as it remains viable. The program need only satisfy its own clientele. One of the prerequisites of the program should be that anytime a student becomes disenchanted with the alternative he can return to the traditional program. Without new buildings or additional resources, this strategy allows for the establishment of total alternative programs within the current structure of the school.

6

Six: One day a week could be reserved for social service. There is some experimental evidence to suggest that little difference exists between the amount of learning that occurs in classes meeting four days a week and those meeting five days a week. Therefore, we simply say that we think that it is important for kids to do something that counts for real. Now, this addresses one of the problems of kids today; namely, they aren't hooked to anything. They're just involved in the existential present.

It seems a perfectly reasonable social contract to say that, if kids are going to be educated at public expense, they should return some of that investment to the community in which they live.

7

Seven: Any school willing to drop one teaching position will be allowed to keep the money for that

position in order to create one master teacher position paying twice the normal salary. That master teach might be selected by majority vote of the faculty, or perhaps by a vote of the parents.

The master teacher should be left free to determine how he or she would spend his or her time. This is the idea of in-flight correction again. After identifying a precious teaching resource, that resource should be used to influence the lives of the maximum number of kids.

This innovation addresses one of the major problems we have in education: the erosion of talent in the classroom. The best teachers are promoted out of the classroom to be administrators, curriculum coordinators, or teacher educators. A system of master teachers would be a step toward retaining talent in the classroom.

8

Eight: Again, with the stroke of a pen, a superintendent could say, "Effective next fall, the grading system in each elementary school will be up to the discretion of each individual parent".

Now who can argue against that? Every parent gets the reporting he or she wants. For those parents who are not very imaginative, two or three standard systems would be available.

9

Nine: Make an inventory of both personnel resources and site resources within the community. For example, a district could hire a housewife in the community half-time and pay her $5,000 on the premise that she would produce $100,000 of free personnel resources to the

school each year.

Now, the problem is that the school isn't set up to receive those resources. Typically, the teacher sits in the back of the room while a guest lecturer holds forth, which is a duplication of resources. On the other hand, a program could be set up in such a way as to systematically take advantage of short-term learning experiences out in the community. That is not only pedagogically sound, but it helps build favorable community/school relations.

10

Ten: Establish a series of community apprenticeships which a student could use for up to one-third of his program. Learning would take place in the community under the supervision of an experienced hand. The student would have to find someone who would agree to supervise this learning and who would work with the student on some sort of systematic basis. The experience would need to have a valid educational component and would have to be approved by the school. This is somewhat akin to a work-study program, though the range of apprenticeships would be a great deal wider. For example, a student could work with the town clerk, in a town planning office, in the plumbers union, or with a newspaper.

11

Eleven: The following is a modest little wild proposal for a school unit's inservice program. A school would contract with a college or university to undergo an extensive reorientation of its program on the basis of a group inservice program. This program would last

for a thre-year period and would require about a half a day per week of inservice training.

During year one, the school staff would take an inventory of their program and then figure out how they would like to change it dramatically. During year two, they would figure out how to accomplish this change, and in the third year they would implement it.

Any professional faculty or administrator who stayed with the program for the three years would increase his/her degree by one level. This program would have to be agreed to as a major renovation by both the school and the university and ratified by the school board and the state department of education.

12

Twelve: Develop an experimental college internship. Any college student or group of college students could, with joint school and university sponsorship, plan an experimental program to be implemented in a school for university credit. They would plan a program and would be free to implement it for whatever students wished to take that program (if the program was approved in advance by the college and the school). It would become an enrichment program for the school without extra expenditure, and the college students could get a rewarding experience they themselves have created.

13

Thirteen: Identify an experimental group of 50-100 kids, beginning with grade 7, who will volunteer to go through the six years of secondary education in three years. The purpose is to see whether or not some of the

slack can be taken out of secondary education. Educators should see if a way can be found to have students gain intellectual competence in a much more sophisticated, intensive manner. These students would be prohibited from going to summer school, because they would not have to give up their childhood to participate in this experience.

A necessary part of this arrangement would be an agreement in advance from a college close by to accept these students as a group on an experimental basis at the end of their three-year program. In most cases, if a 15-year-old goes off to college, he gets done in by the social system. However, a group of 100 15-year-olds is large enough to establish an independent social subsystem which will benefit their own development and also enable us to learn whether or not 15-year-olds can go to college.

The alternatives suggested here are options which school districts could consider without extensive preplanning. They suggest a variety of approaches to introducing greater creativity and flexibility in a school system. A thoughtful and adaptable group of students, parents, teachers, and administrators should be able to dream up 13 options of their own; the only limits seem to be our own imaginations. The results might bring new combinations of people working together toward new definitions of competence and learning.

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SOCIAL BUILDERS: THE STUDY TEAM

Converting Social Concerns into Practicable Design Programs

The members of the team who researched and wrote this study are participating in a Master of Arts degree program in Architecture and Urban Planning at the University of California, Los Angeles.

Social Building is a germinal program at UCLA that entails management approaches to the design of facilities and urban settings; the introduction into professional practice of a broad range of social concerns, new forms of responsibility, and new aspirations for the utilization of facilities once they are constructed.

The fact of this emergent field reflects a growing recognition of the inadequacies of a purely technical approach to architecture and design and the equally vivid failings of aesthic criteria and historical guidelines.

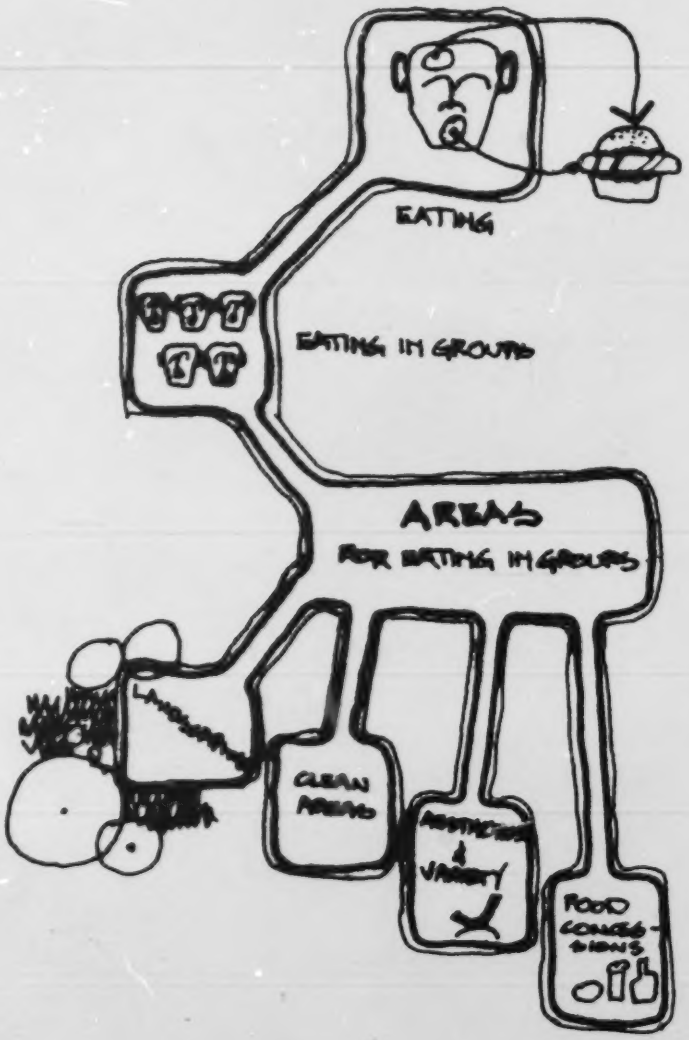
The building industry is beginning to recognize the dollar value of converting social concerns into practicable design programs through: energy-conserving designs, creating buildings which capture human resources more effectively, emphasizing community development, use of building-systems, information and social technology. No sector of society can be more

effective in restructuring the way we "package" our lives than a building industry catalyzed by new means of meeting these pressures as a positive opportunity for social-change.

These data cannot be internalized all at once--indeed, it is only through case experience that the structure of this industry and its principle actors can be learned.

With this premise in mind, this study team chose four high schools in the Los Angeles Unified School District to examine closely between January and June 1976. A case study approach to our research was initiated and applied to one of the four high schools. What grew out of this concentrated experience and evaluation was this study - an application of the tenants of Social Building to the high school social built environments.

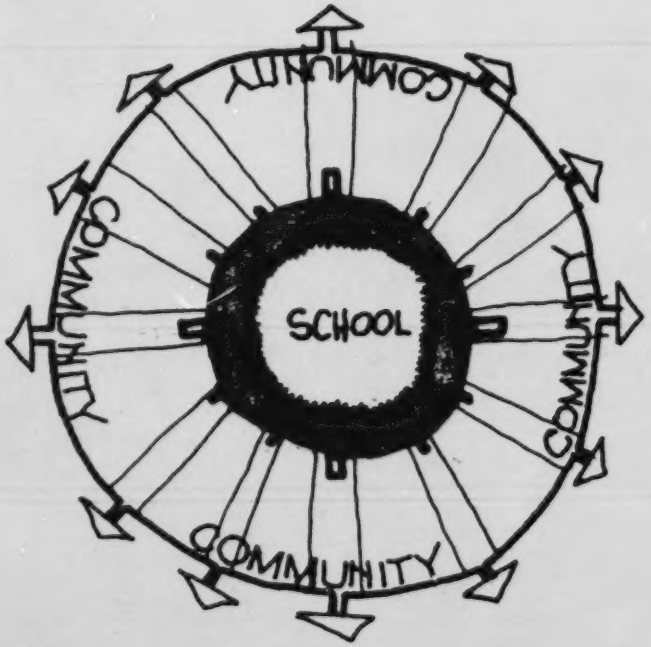
CHAPTER 1



INTRODUCTION

The School Building Puzzle

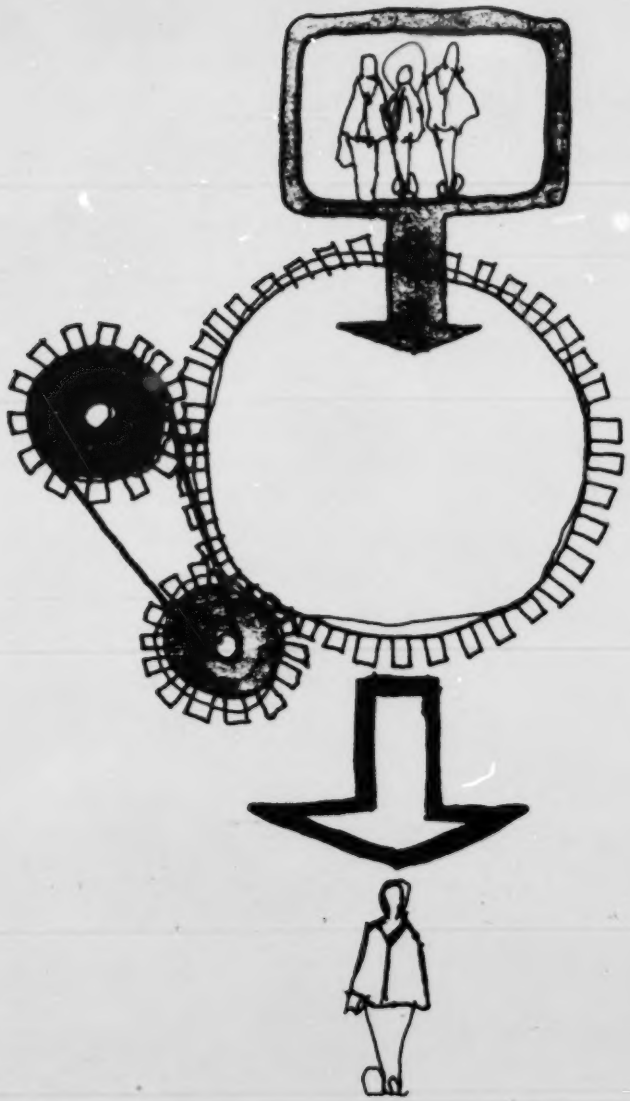
In recent months, a number of School Boards in California have begun to review facilities holdings in light of major population shifts with the marked realization that no serious examination of this type has been performed since "building-templates" were drawn as a consequence of post-World War II construction programs. It was after World War II that a large population boom led to the proliferation of large runaway public institutions which all bear the same stamp; they are prototypes designed for mass-adoption with a uniform set of protocols and practices. Public housing projects across the country bear this stamp. Large prisons, detention facilities, military bases, and secondary schools, social welfare settings, and public hospitals have each in their turn adopted this style of service management. In each, the objective is to provide the service through the development of a self-contained, internally reticulated corporation with its own rules, practices and objectives. The "community" became, through this process, simply another specialized institution, a "housing place" rather than an integrated setting which is a political, social and educational force in American life.



The consequence of over-specialization has been an over-reliance on individual institutions and their specialists to perform roles which they can not fulfill. For example, the juvenile justice system can not discourage or rehabilitate criminals. Partly, this is an environmental concern. Supervision and rehabilitation of juveniles is a problem which can only be solved by a community with the guidance of the juvenile authorities.

Similarly, schools can augment the process of education only by providing access to skills, resources and models. At some point in this process of institutional development, the goals of the system of schooling have become fused or conflated with those of education which is a much larger and life-long process. In some respects, schools have become mega-settings for all non-religious aspects of community life, functioning as they do as all-day comprehensive settings. Perhaps they have inhibited the development of other important institutional varieties through investment in a single system for service-delivery. For example, there is a silent and passive conspiracy, of the same order, in the transportation industry. Automobiles, highways and mass transit systems have been designed as interlocking members of a comprehensive national system built on the basis of an agreed conception of the recipient or user of transit.

While the results have been stunning and unmatched anywhere else in the world, (National Highways and



Parkways forming a comprehensive system), the system may have inhibited the large scale application and development of other "para-transit" alternatives. For example, the use of "car pools", dial-a-ride, or alternatively, the location of work opportunities in proximity to residents. With the benefits of large-scale comprehensive planning systems in these crucial social welfare areas have come major secondary disbenefits which call to question the wisdom of the original strategy.

Facilities Review and Renewal

The pressure of school desegregation decisions, the energy crisis, and earthquake review, have all provided a strong incentive and an opportunity to review major aspects of the design and management of the school enterprise.

Enlightened school districts have seen all these programs as opportunities to innovate by reviewing their curricular packages and their administrative practices hand in hand with the consideration of physical facilities or administrative systems themselves. The subject of this study is the general wisdom involved in this comprehensive approach. Comprehensive review suggests that any existing need for modifications can provide the opportunity to achieve more far reaching objectives. In this time of strained resources there is need to piggyback other program needs onto a given priority.

There is also the need to return to some more gen-

eric form of these problems, that is, a level of organization of the system more general and prior to what is known as "state of the art" knowledge in a field.

The character of the secondary school as we know it is an over-specialized end-form. The school is a concrete administrative mechanism, a set of buildings, a library of specific curricular materials and programs. Beneath this outward concrete form is an inner form, a process, which would take place with equal effectiveness in radically altered circumstances and with vastly modified materials. Of course, altering the context of work and magnifying expectations and practices does not occur over night and without major committment to the internal changes which personnel and students are required to make in order to accommodate themselves to these new frameworks. There is however, a pressing need to raise these concerns in the secondary education arena. In this complex urban institutional setting, there is growing agreement that a gap exists between the societal goals which support the educational enterprise and the specialized settings which have evolved over the years to achieve these goals. There is growing recognition that the school as we know it, may require new prototypical forms in order to accommodate new educational and social burdens pressing upon the system.

The subject of this study, then, is an examination of the relationship, between the setting in which schooling is undertaken and education as we know it.

By schooling, we mean only the building, the materials, the administrative practices and the general management practices which are prevalent, specifically secondary education. The study does not suggest, or imply that the goals of education itself will be substantially modified in the future, or that the professionals currently in the role of responsibility for seeing to education will be substantially changed. In short, the educational process will remain quite the same including sustaining current staff, existing criteria and general societal objectives. The place, pace and character of the experience may however be substantially modified.

Systemic Aspects of the Need for Educational Reform in Secondary Education

It is clear that the problems which face secondary education are not restricted to a single area of concern, but are systemic, that is, they are present in all aspects of the system and have taken many generations to achieve the status they currently enjoy. We are looking at a system of education which has become fused with and inseparable from its buildings, its books, and its administrative standards and practices.

In some respects, the planning process has become cut off from the goals to which it is dedicated. There is need to rethink and recast plans for buildings, programs and curriculum as part of a single comprehensive redesign of the system. Unfortunately, this has to be

done while the school continues to be a societal proving-ground, a leading edge and a heat shield for other salient public program priorities, e.g., community involvement, racial desegregation, and equal opportunity.

The problem with encouraging this set of expectations for change is that there is no single specialist who can comprehend the complexity of all fields from curricular design to materials management, from teacher training to food services. Inasmuch as problems are systemic, there is no specialist with a grasp of the system from all these perspectives.

If we were, for example, to modify the organization of the service institution to accomodate substantially more individualized instruction, what impacts would there be on school travel, nutrition, education, food service, administration, and family authority for students' welfare? All these areas of education are now held in place by the school as we know it. The existing vehicle of educational delivery carries many unknown and countless secondary functions which need to be considered before we engage in any concrete planning.

In fact, the number of primary program areas and secondary impacts are far too great for any individual system to accommodate or even contemplate. Several years ago, we might have waited for Federal guidelines governing this kind of systemic change to come down from Washington. Now, we know those promised plans will never be forthcoming and if changes are to occur

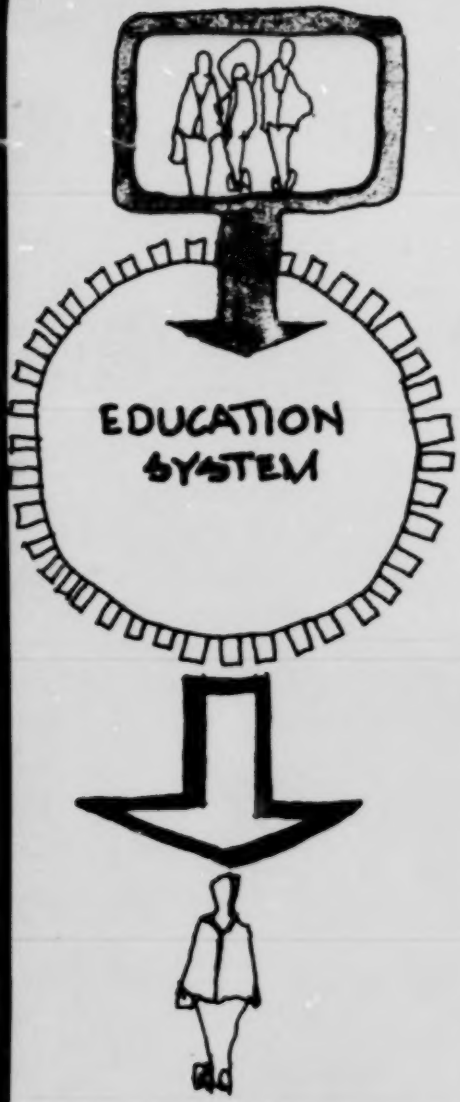
they will take place through an internal process of redevelopment and review initiated at the local level.

What Kind of Review is Coming?

In Los Angeles five new senior high schools were built over the past five to ten years. There has been substantial agitation to develop more flexible community oriented plans, but alternative systems receive only lukewarm approval and interest because they have not yet been demonstrated as a solution which can operate on a large-scale. It is also true that creating major facilities and programs imperil the delivery of education in another manner, by forcing the future to accept a context of education which may no longer be appropriate.

Current practices in the design of buildings for schools are not unlike practices in other institutional areas at the state or city level. Conventions and rules of thumb dominate the picture.

High schools, for example, are extraordinarily complex and large institutions. They are divided functionally into departments, and further organized around sub-systems for administration, support services (e.g., library, gymnasium), and staff. They have become completely the functional product of the specialist skills and trades we developed to staff them. For example, physical education no longer bears an organic relationship to life in the school setting; rather, it is an activity undertaken for a scheduled period of time in a prescribed manner and place.



Clearly, there are scheduling and space management issues which can be raised to justify these organizational choices. There are practical obstacles to the provision of open access to physical exercise options: for example, the need for a certain amount of segregation of boys and girls; supervision needs for less developed individuals, and monitoring of groups to insure the health and welfare. We are not suggesting that these consequences will change radically, or that context will shift significantly. Rather, that the locus of responsibility for the choice of these scheduled activities will expand to include the student, the full range of teachers in the school, the community, and the parents who have been struggling to identify new roles of parenting for future generations.

Social Design and Redesign

The initiation of social design considerations into the secondary school system calls to mind the resistance of the Navy to redesign of Naval ships. The modern destroyer utilizes a staff of about 250 men when it is at sea. Typically there are 12 or more men devoted to ship-manning and control (they operate the bridge). Generally, these jobs are a combination of dated seafarer traditions and actual operational need. At each watch on the bridge there is a "bosunsmate of the watch", "a helmsman", and "a quartermaster of the watch". These jobs, romantic as they sound, are unpleasant administrative duties because there really is nothing to do. They are not actually operating the

ship, but more or less ready on duty in the event of some emergency.

In some sense these jobs were designed in the days of three-masters and are inappropriate for a modern computer oriented, nuclear Navy, but they persist. Similarly, the scraping and swabbing of the ship is done in the time honored way rather than using modern technical equipment. There are all sorts of justifications in the Navy for these procedures (including claims of the high risks due to fire below deck), but none are justified by technical standards. Actually, what is true about swabbing is that it serves as social function as the basis for distinguishing between deck and engine-room cultures. If swabbing and other roles were transformed into tasks which could be assigned to anyone aboard ship, the cultures which have grown up around doing certain types of work would be modified or eliminated.

In point of fact, some estimates suggest that the 250 man destroyer could be operated effectively by as few as 40 men. In the merchant Navy as few as 25 men may he needed to operate an equal size ship. Presuming that these added men (and women incidentally) might be needed in the event of an emergency or an attack, what would they do if the ship were operated and maintained by a small fraction of their current staff? Part of the resistance to social analysis of jobs is that we may not need institutions to be as large and specialized as they are currently in order to

get the work done.

The Outcome of Job Analysis of the Secondary School

Like the Navy there may be a need to seriously re-evaluate the organization of the school as a social system and as a tool of education in society. Some of the areas which might come to the surface are as follows:

1

(1) Less Students. Perhaps there are actually fewer students who need to be associated with secondary schools in order to fulfill their educational needs. This would decrease the potential size of these institutions in the same way that deinstitutionalization programs have reformulated and reduced activities of mental hospitals, juvenile facilities and institutions for the developmentally disabled. Some students will find parity in other offerings or settings in the community. This might occur through an "Antioch plan", i.e., individualized programming and review of educational needs on a person-by-person basis. It might occur alternatively, through new institutions set in motion by the funds and the staff liberated from secondary schools as we know them, e.g. in "live-in youth centers", "wilderness experience camps", "farming-co-operatives", "international-travel clubs" and "research apprenticeships".

2

(2) Administration and Staff Development. By simply disaggregating the market of students, that is, not assuming the need to be in school based on simple

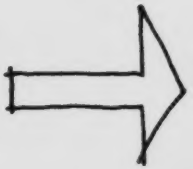
age criteria, there would be a great need for a new style of decision making at the local level. The tasks of school administration would now include a great deal of planning and program development in order to anticipate emergent educational needs among a shifting population. This kind of development planning has already occured in University Extension divisions and many junior colleges who have developed a community outreach function. They appeal to diverse adult education markets in the community through an evolving, changing set of course offerings and experience opportunities. This tends to turn the administrator into a futurist, a master-planner, a crystal ball gazer, or a forecaster, rather than a backstop for community complaints, personnel problems and student misconduct.

Teacher development become plausible when they realize that they do not have to "teach" for students to be educated. In fact, under the correct circumstances, teachers do not have to do anything special or extraordinary for their students to become educated. The lesson of the past 20 years is more that teachers need to stay out of the way of students in order to allow them to educate themselves. Rather than fight 30 students in a class to stick with a theme, the redesign of the role of teacher might make it possible to give responsibility to students for their own education.

Perhaps the teacher should be primarily occupied with guiding personal growth and scholarship, allowing

students to participate in and share the pleasures of this role. Also, teachers currently spend the bulk of their time in classrooms rather than at work on the things which are important to themselves. Working with their students in this new context could assist them in opening up important new avenues for personal growth.

(3) Multi-Specialists and Educational Development. A great deal of the basic work of teaching can be done by individual master-teachers who themselves undergo continuous redevelopment to be able to take on larger and more demanding roles as group counselors or student advocates. There needs to be a wide range of roles in the school system devoted to "spanning" one or another breach created over the past decades of specialization.



There is a need for language spanners, science-art spanners, community-school spanners, theory-practice spanners, etc. As the school becomes opened up as a system, spanning roles which are currently being performed without recognition will become validated roles. As new jobs get created, they will come to recognize that the school is not merely a series of roles which need to be fulfilled into order to meet academic guidelines. The school requires at its disposal all the roles needed by any organization seeking to survive

a complex, changing environment:

- o a means of creatively managing its resources;
- o a procedure for inventing and reaching agreement on new and challenging goals in a dynamic context;
- o a means of ongoing self-evaluation based on diverse readings within the community;
- o a means of communicating its intentions objectives to its members and sponsors in an ongoing fashion, with sensitivity to the use of planning as an interactive dialogue with other participants.

The net effect of these types of modifications in the organization of the school is a great deal more autonomy on the part of individual schools. This has the following effects:

- o learning is viewed as a continuous activity, on and off the job, for teachers, students and the community, not a specialized activity restricted to certain times and places;
- o there is increasing decision making and responsibility on all levels and in all jobs;
- o increased social support as mutual appreciation of the varieties of task performance replaces the narrow reward structure typical of corporately inspired management practices; the high-performance group replaces the individual as the operative unit;

- because the system is socially open, it is also more open to outside influence--this immediately gives it access to a more meaningful relationship between in-school activities and those in the outside world;
- finally, it excites in all participants the sense that the future is unknown and that education is much more than a dry-reading of known skills, but a mutual process of exploration.

OBJECTIVES OF ENVIRONMENTAL CHANGE

- o gradual self-guided study
- o self-determined relation of leaves, schedules, furloughs
- o step-wise training to integrate function of professional teachers, administrators, community participants, and non-professional maintenance staff
- o changes in physical layout to accommodate new functions of schools, expanded use of other physical resources on contract or lease basis.
- o integration of school management (physical, curricular, administrative)
- o reduction of reports and regulations
- o integrated budgeting and planning, local decision-making
- o plenary meetings of school and examination of policy
- o rationalization of importance of maintenance, information, food services, other contextual and support activities
- o restructuring status system
- o step-wise evaluation and reallocation (from lowest to highest echelon) based on objectives of education
- o modification of work culture to include new conceptions of the mission of schooling and to accommodate new educational "gestalts", greater diversity of styles of teaching/studenting.

CHAPTER 3

UNDERSTOOD AND ACCEPTED CONSTRAINTS

America has entered an age of education. "Because it is a process for human and societal renewal, education will attain an increasingly higher priority as the needs of a post-industrial society are more fully expressed". (Fantini)

In the past few years the world has changed radically, and the resources each individual needs to cope with it have increased. To understand the complexities of daily life in the metropolis is a task unto itself and the current school system has had increasing difficulty and obvious failures attempting to prepare our youth for the urban world they face as adults. Teaching the "Three R's", however essential and basic to education, is not enough to equip them to survive in a rapidly changing world. Such survival requires, among other things, the ability to deal creatively with new situations and to understand the institutional apparatus which plays an important role throughout our lives.

> "Public education is in a state of disarray because we have asked our schools to perform a miracle--to teach the young to understand the world they live in, and the one they are to live in in the future, when we ourselves show little awareness of fiduciary obligation to

> that future; to train them for the skills required to work an economy that will inevitably be public when we ourselves give priority to the private economy; to persuade them to respect all the values that we do not ourselves observe". (Commager)

We do not need to concentrate so much on improving student contact as improving the conduct of the schools and the society that does or does not support them.

Before we can begin to articulate in this study any insights concerning the secondary educational system, we feel we must deliniate the understood and accepted constraints that are a part of the school system as it operates today.

The following are five major constraints this study will accept in discussing possible radical changes.

1 Constraint #1. School system personnel will be retained but their roles and responsibilities will be changed and expanded.

Most people reading this study are imminently involved with the present school system. They are people who know the truth behind the statement by Commager and are best prepared to help this system undergo the changes necessary. As they alter their roles as educators, they will most likely alter their views of what an education system should be.

Employees of the school system--from the policy makers in the federal, state and city governments down through the board members, principals, teachers and

non-faculty staff have been entrusted with the mandate to educate our youth. If the school system cannot prepare students to deal with our complex world and its demands, society will soon retract its mandate.

Within this study are ideas with potential for resolving the educational needs of adolescents as well as our environment. This is a basic and valid goal of the public school system, and its manpower is, and has always been, capable of carrying it through. Rather than view this study as a threat, we hope that school system personnel will see it as the possibility for decreased demands upon them to perform obsolete tasks and increased freedom to do that for which they are highly trained and most qualified--educate.

2

Constraint #2. There will be a point in time when the student is qualified to enter high school and another when he is qualified to graduate.

The diploma is the certificate which sends the high school graduate out into the world, where he is expected to take on an adult role--by going on to college or seeking full time employment. Society makes it permissible for him to move away from home and live wherever and with whomever he so desires, marry and start a family. Although we agree that education is a life-long endeavor, beginning at birth and continuing until death, we also believe that it takes place in stages, and high school graduation is a crucial and important event along this educational continuum. Although the diploma does not tell the student he no

longer needs to learn, it does signify that he/she has completed this stage of the learning process successfully.

3 Constraint #3. Graduation requirements will be identified. Proficiency in relevant areas will be required before the student is allowed to graduate.

It is increasingly brought to public attention that our high schools are graduating students whose reading, writing and computation abilities are at decreased levels of proficiency. Standard testing services report that college entrance examination scores are down significantly in recent years. Today, when the state-of-the-knowledge in technology and the arts is at its highest, information its most accessible and economically reasonable, and media production its most sophisticated, this decreased proficiency does not make sense.

Again, reading, writing, and computation form the crucial basis of any education, but there are myriad areas of knowledge that should accompany them. Our growing metropolitan areas offer vast opportunities to learn about and appreciate art, design, theatre and music. If we do not give our students ample opportunity and guidance to learn about these areas, we are failing to live up to our potential.

High school graduation is an important step in anyone's life, and it is unfair to present this diploma to someone who has not learned what is required to graduate. However, we are doing a disservice to the

person we graduate with straight A's if those 100% correct answers were given to irrelevant questions. Exit criteria should not be synonomous with scores on standardized tests or number of hours (years) spent in school, but with demonstrated proficiency in relevant areas. This proficiency will be evaluated in ways which allow the student to show the extent of his/her knowledge and discover where the gap lies.

4 Constraint #4. A high school education is the right of each individual, regardless of race, religion or economic status.

Many people have dedicated their lives to guarantee public education for all. We put it under the heading of "constraint" only because it is something that presently exists in our school system which must also exist in our education system. We hope that his/her education system will not only be a vehicle of education for all ethnic and economic groups, but will also provide settings for each to learn about the others, both in terms of their histories and the roles they play in today's cultural, economic and political world.

5 Constraint #5. The high school system will retain structure, but will be made more flexible.

The "school house", although the primary place where formal education takes place, is only a building. It is standardized, through governmental ordinance and code requirements, in its design and capabilities. It is, without a doubt, the best environment in which to

learn about schools. But in other areas it is, at best, only a laboratory wherein one must simulate a real world situation or experience. Education need not start at 9:00 a.m. and end at 3:30 p.m.; begin on Monday and end on Friday; open in September and close in June. The world is a learning environment--and one which does not stop on weekends and close for the summer.

The education system should become decentralized. As architect Giancarlo de Carlo wrote: "The school should not be an island but a structure spread out in the network of social activities, capable of articulating itself to their continual variation". Society should come to share responsibility for the education process and school system personnel will play new interactive roles in their communities.

We want to bring the students out into the world and take the world into the schools for the learning benefit of all. A poor public education system benefits noone, and a good system benefits all. Citizens pay taxes and support the school system and deserve to benefit from it for themselves, their children and their community.

CHAPTER 4

THE PLAYGROUND OF GOALS: POLICY LEVERS

Current school policies, whether local, state or federal are an area often scrutinized by many but understood by few.

Policy periodically is formed out of a desire for rigidity or control in the school system, which contributes to the misunderstandings, rather than as a lever for change.

These reams of policy decisions that affect all people who come in contact with the public secondary school system in Los Angeles, we feel, can be the playground of new or revised goals.

The policy levers that are outlined here have been extracted from the morass of policy statements made and condoned for many years. These particular policy levers stand out as offering the finest opportunities for change.

Compulsory Education Laws

These laws normally and quite frankly are the basis for keeping students in public schools until the age of seventeen. Compulsory education also enables a certain range of juvenile crime to exist, i.e. truancy and loitering during school hours in public places.

Possible opportunities to use this policy as a lever for change are being instituted currently in the

form of the California State Equivalency Test for those high school students wishing to leave up to one year before their normal graduation date. This policy lever is being applied on a district by district basis.

Also, career education opportunities are offered high school students the possibility of gaining graduation credits for applied work study programs.

There are also several cases where high school students have brought law suits against their respective school districts for not supplying them with the necessary education skills needed for employment satisfaction.

Financing and Taxation

School bond issues have always existed as a lever of change for the tax paying voters. And state financing has been based on a school system's average daily attendance (ADA) figures and tied to the time or manner in which instruction is provided.

Within this policy is great room to think about eliminating the ADA system of financing and turn to the more realistic approach based on the number of learners enrolled in a school system's educational programs.

The opportunity for private industry to make a more direct financial contribution exists, without it being completely self-serving.

Shared Teaching Jobs/Community Resources

The policies that direct the use of certified teachers in classrooms as the sole instructors have

shut out valuable community teaching resources. Token volunteer consultant programs have been initiated, but do not begin to free the contracted teacher to pursue additional experiences. Within this policy exists the opportunity to have a much more complete and effective physical and human resources system in the community that can contribute to achieving learning objectives.

Perhaps a teacher could exchange jobs with a student's father or mother for a week to enable the teacher to acquire new skills or understanding and for the parent to gain a direct working understanding of the school and also share his/her professional knowledge in the classroom.

Adult and Child Education

The policies that contribute to the education of only children and young people are both literal and subliminal. The literal policies fall within the realm of the Compulsory Education laws, but the subliminal policies have allowed us to somehow feel education is over with a high school diploma for most people.

There is room here to consider systems of life-long education for all segments of the community with no age barriers. Also a career education and work study system design where participating agencies and individuals are provided with recognition, tax incentives, financial assistance, or other types of motivation for their participation in the educational process.

Campus Plan Changes

As the Los Angeles School District completes its repair, rehabilitation and in some cases total rebuilding of earthquake damaged learning facilities, it is an ideal time to discuss the policies that dictate the shape and scope of campus planning.

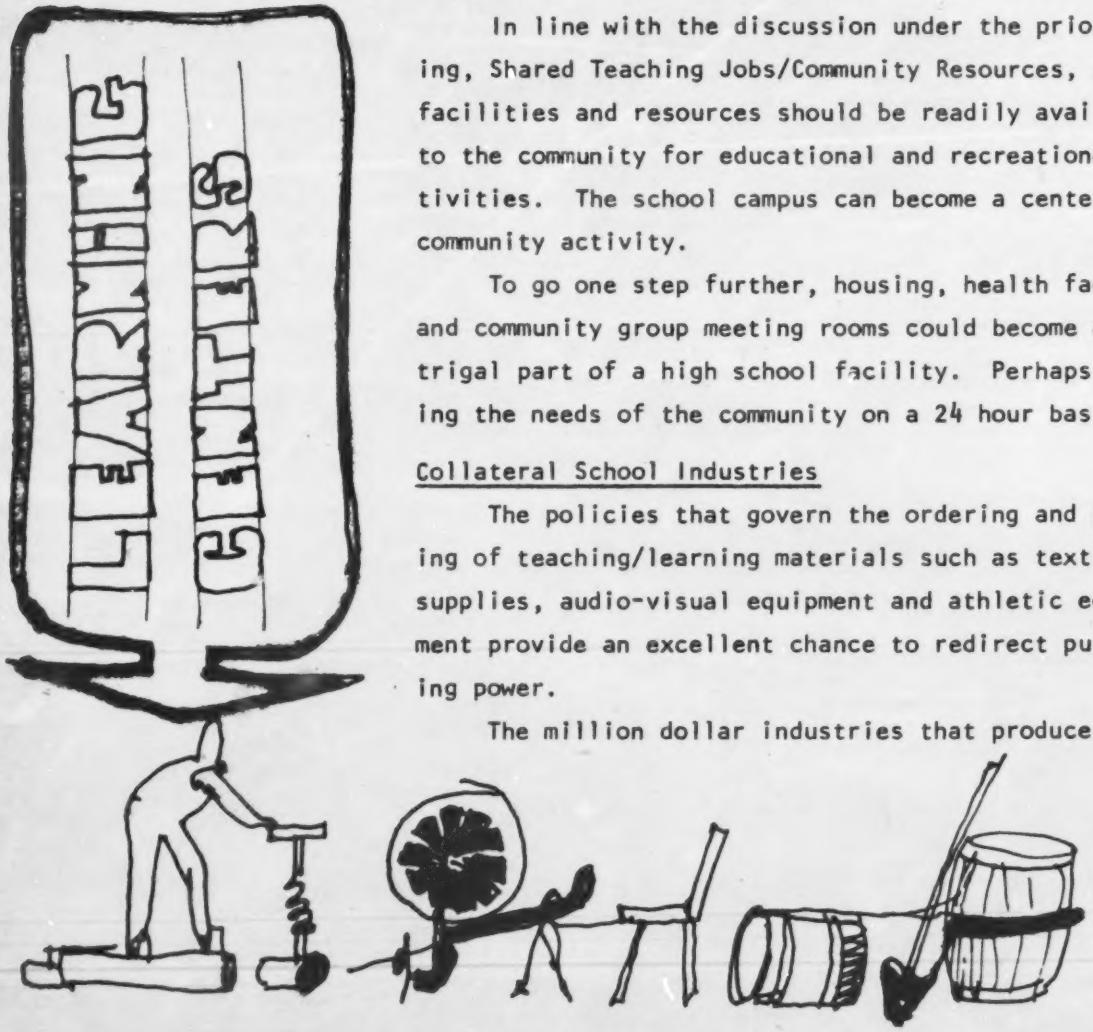
In line with the discussion under the prior heading, Shared Teaching Jobs/Community Resources, school facilities and resources should be readily available to the community for educational and recreational activities. The school campus can become a center for community activity.

To go one step further, housing, health facilities and community group meeting rooms could become an intrigal part of a high school facility. Perhaps meeting the needs of the community on a 24 hour basis.

Collateral School Industries

The policies that govern the ordering and purchasing of teaching/learning materials such as text books, supplies, audio-visual equipment and athletic equipment provide an excellent chance to redirect purchasing power.

The million dollar industries that produce these



aforementioned items rely on learning institutions to maintain their buying policies to gain a profit.

These policies could be redirected to enable these private industries to play a closer role with places of learning. This closer role could take the form of redistribution of profit as work-study salaries for students interested in elements of these industries.

These are only a few of the many policies that are prime candidates as levers of change. The brief discussion of each, and accompanying goal ideas provides a beginning point to review current school/learning policies and invision the possibilities for change within each one.

CHAPTER 5

SEARCH FOR NEW PARADIGMS

One of the lessons of the open-education movement which has been discussed, is that this philosophical goal can be achieved in a wide range of settings, not merely in the "open classroom" designed in response to the philosophy. Clearly, and despite this caution, there is need for striking new paradigms of this conception of education on an urban scale. Out of these diverse and striking paradigms will come the inspiration for rethinking the parts or pieces of social/physical form out of which we weave our institutions and their practices.

Most of our secondary schools are designed on the model of the independent corporation, a free-standing community institution which embodies all the skills which exist in the community at large in some diminished form. They conceive knowledge to be abstract, divided neatly into disciplines and skills.

Disciplines	Skills
English	Business Education (typing)
Science	Physical Education
Mathematics	Homemaking
Music and Art	Industrial Arts
Social Studies	

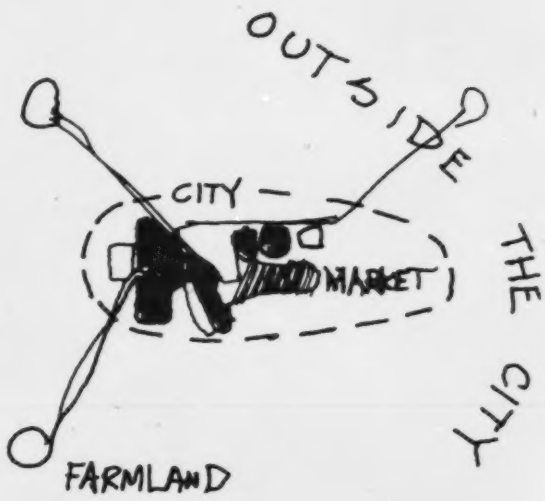
For many, these lists have become interchangeable or at the very least they are ambiguous. Physical Education: In the University this is now recognized as

a serious academic area, Kinesiology. Most past physiological work has been on animals performed in highly abstract laboratory programs. Kinesiologists study muscle activities of high-performance athletes, physiology of exercise in natural settings, etc. The results of which are different from the animal studies. No longer are these ex-athletes teaching health education courses. Business Education: Entrepreneurship has suddenly become a source of scholarship as the "enterprise" or the "firms" is taken as a subject of serious study as a major social setting. It is the living laboratory for social-organizational studies which crosses political and social lines.

New paradigms are needed to augment the identification of new categories of analysis. For example, imagine a secondary school linked with a commercial shopping development or an office commercial building. Rather than dividing the work areas as do existing programs, new educational zones would have to be identified. Secondary School Associated with a Commercial Office Building: As part of the conception of the school there would be emphasis on specialty areas in the school which take advantage of their proximity to the office complex. For example, there might be facilities for "teaching" of office skills, business practices, design and layout, drafting, etc. In addition, there would also be the need for new "para-settings" suggested by this unique combination of institutional forces (the school and the office building). Students

might need "bull-pens" to be briefed in advance of a session held in the business complex as part of a joint career education program. They also might need places to observe adult performance of work, inconspicously, so they may apprentice themselves to the conduct of work without interfering. What the school lacks is well-roundedness, i.e., in the provision of a full complement of offerings, it would recapture in the availability of live opportunities for access to institutions and the people who run them.

As we begin to contemplate the secondary school as an investment in the education of the community, this provides a different view from the conception of the school as a universal instrument repeated in all communities in much the same fashion. The school as an "investment in the education of the community" is designed in response to and suited to the opportunities and constraints provided by the local context. In one setting, it might stress school-busing to the point where it becomes the theme for a new type of education (MOBOC, the Mobile Open-Classroom school in West Los Angeles, an example of this type of system). In another setting, the school might become the center of community political life with a live-in staff and a "teachery" associated with it.



Cautions in the Development of New Paradigms

With the shift to performance standards as opposed to detailed specification standards, new risks need

to be endured by a community. Rather than giving the designer of a new school a series of room-types and space standards, the developer of a new school in a community could be commissioned to locate it in anything from a "Zoo" to a "Shopping Development". This means that the developer of a school has to survey the community and create an institution which fulfills educational objectives, staff needs for self development, and takes advantage of opportunities which are present in the community.

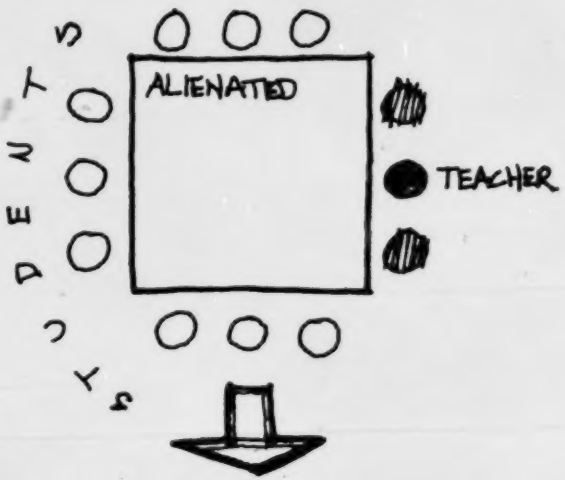
This is obviously a very difficult process to control and to anticipate the outcome. Someone may wish to specialize the school to excess (e.g., emphasize aeronautics in a small community at the expense of other areas of study by hooking the school to an airport). A sponsor might wish to use the school as a means of securing inexpensive labor (locating manual arts training in a factory). For the most part, these dire possibilities are very unlikely. The approach we are advocating merely reflects a growing recognition in educators of the value of daily life and ordinary skills and experiences as opposed to the special, extraordinary experiences with which most education is concerned. What has happened is that so much of our personal experience has become vicarious and indirect. Thus, the new concern with opening up new channels for students for contact with the outside school world.

It is also important to recognize that new paradigms can not be designed all at once. Paradigms re-

quire a long process of initiation, trial-and-discovery, review and reiteration. Through the initiation of new programs one begins to discover latent opportunities which they suggest in the environment. It is as if the whole school interacts with the environment surrounding it. Through a series of such interactions, over several generations of schooling, new conceptions of the nature and meaning of the school setting emerge. Several important prototypes suited to the next generation are always needed as substitutes for previous specialties. There is a need to identify these new directions of development through a process of interaction and iteration.

CHAPTER 6

APPLYING SOCIO-TECHNICAL SYSTEMS DESIGN TO THE SCHOOL



It is not possible to redesign a complex system according to a renewed understanding of its goals and objectives. Schools are too numerous, too complex and too effective as they stand to hope that a redesign process could come up with a more adequate model of how the job might be done. In fact, the problem with schools as we know them is their "adequacy".

The issue is not to come up with a more perfect version of the school as an institution, rather, it is to develop a basis for using the current context, the rich resource of plentiful opportunities which already exist, as a basis for redeveloping the school as an institution. Each time we initiate a new school building program or look at land holdings in a comprehensive fashion, an opportunity exists to identify new categories of analysis and to establish new grounds for running the system.

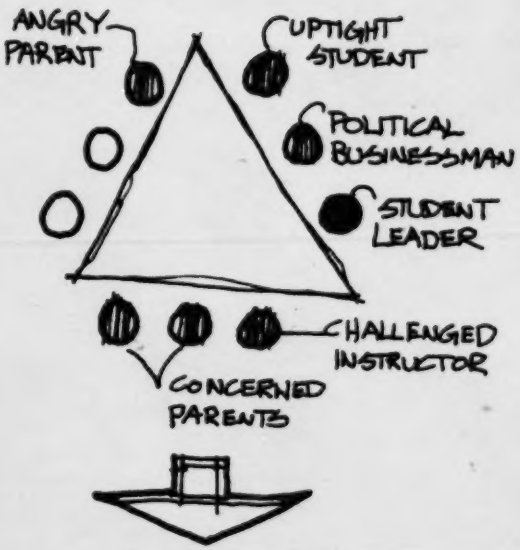
In some sense, the context has a far more directive influence on the nature of schooling than the content of education. The things we always thought were merely the supports for other more significant aims, turn out to be very significant landmarks on the route to redesigning of institutions. Buildings, cafeterias, broom-closets, chalkboards, rectangular tables, and all

other features of the school setting, are the material culture through which the everyday meanings of school are negotiated.

Socio-Technical Systems in General

People are redefining their lives and making new demands upon institutions as quickly as they can master the performance requirements for gaining entry into them. Alternatively, they are choosing to leave institutions or becoming disaffected with the meaning of their performance within them. This has been especially evident in the modern history of corporations, schools, and other large-scale organizations. Organizations become aware of the nature of the problem where they have to account for its consequences in high failure rates.

For example, the Navy has trouble instigating volunteer reenlistments if conditions of life abroad it's vessels do not support the aspirations of its enlistees for life-long learning and an open-ended relationship to the tasks they perform in interest of "mission effectiveness". Recruits are no longer willing to perform repetitive or mindless tasks in exchange for ameliorative benefits like travels to faraway places, where these benefits are now more economically afforded through other vehicles, e.g., group charters to Tahiti. Industries and manufacturers are forced to deal with the meaning of work in order to avoid sabotage, to maintain work morale, to reduce training costs incurred by high turnover rates, and to create better production quality and efficiency.



These measurable issues of human-resource-management have motivated many industries (notably AT&T) to engage in highly innovative job design and work enrichment programs. The experience of AT&T is especially instructive where 100,000 of their 1,000,000 employees have been involved in a program over the course of four or five years that has radically changed the organization of work and the allocation of supervisorial responsibility for performance. Regional supervisors once were part of a chain of command that had them countersigning work orders as their primary means of optimizing profits at the regional scale. As a result of the job design effort and the distribution of incentives down the line to the local headquarters, a broadened base of the pyramid now is concerned with work efficiency and the regional manager has become something of a "futurist" or long-range planner.

The Norwegian Navy Study

Einar Thorsrud has had parallel experiences with very established and traditional institutions in Norway, namely, the Norwegian Merchant Marine System. These discoveries have parallel lessons in a dozen or more countries around the world. It might be added in advance that when he started with the Norwegian Merchant Navy there were 15,000 foreigners and 45 Norwegians comprising the Navy. Now the situation has been markedly altered. The reason for the imbalance of non-Norwegians to Norwegians was that in a socialistic culture the merchant Navy could not compete with the benefits that

were perceived as possibly in the land-based society, despite 12% unemployment. Thorsrud, in his studies, dealt with the most sacred and deeply rooted division aboard ship, namely, the relationship between the "deck crew" and the "engine crew". Rather than seeing one as subordinate to the other he investigated the engine crew and the deck crew aboard these ships and found indeed that they had developed and enjoyed the pleasures of diverse cultural traditions, belief patterns, communication mechanisms, and the like. Yet life was unsatisfying aboard ship, routine and arduous, at least in part because they could not credit one another for the values they had independently discovered in their different realms of work and life.

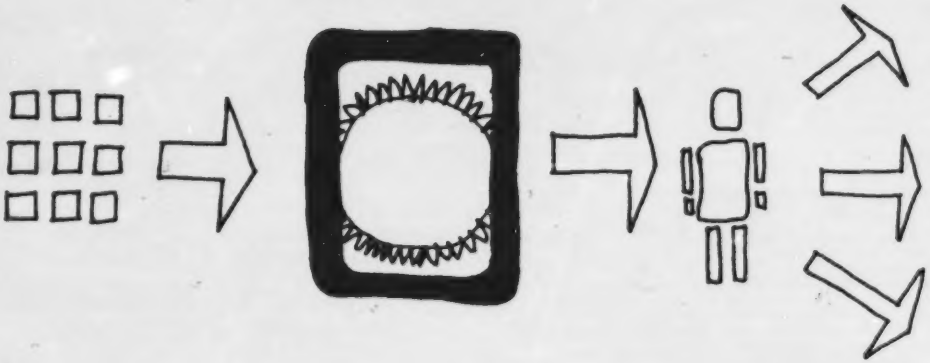
Through a lengthy process of research-in-action, Thorsrud was able to engender a process of socio-technical design. The first principle in this process is to recognize that there is nothing sacrosanct about technology. Where atomic reactors or electric turbines are substituted for diesel engines, traditional tasks change and consequently provide the possibility of change in the structure of roles and protocols. In addition, social design requires sensitivity to the "changing nature" of people, i.e., that recruits are being hired not just to fulfill existing roles, but because of increasing education and future expectations (to say nothing of the incorporation of women aboard ship) work patterns will have to change. This in turn will lead to changes in the social climate at sea, and

may even lead to the redefinition of the mission of sea-going vessels.

For example, it is possible that the Navy will have to alter the way it defines its missions in order to sustain recruitment. Perhaps special missions will have to be invented where education is incorporated as a side function of battle-readiness in a peacetime Navy. Or perhaps industry will be undertaken at sea in order to justify being located in close proximity to places where there is a military need for the Navy's presence. This would serve to molify concerns of men aboard ship that they are merely "standing-by". Among the things which Thorsrud accomplished were the following: 1) integration of the deck and engine crew in association with changes in the physical layout of the dayroom, the bar, the offices, the mess, and the cabins themselves; 2) the elimination of a number of job titles, for example there is no boatswain (each man picks work on a daily basis from a planning board); and 3) there are no mechanics (each man operates and repairs his own equipment). These seemingly small modifications eventually lead to a wide range of secondary modifications which thoroughly redefine the nature of shipboard life into a more participatory, reticulated system.

For example, some of these changes which can be expected to occur in the future are: self recruitment so that men on board ship form a kernal society that indoctrinates novices and acts as a shadow organization for future recruits; self-determined relationship of

leave, so that men can plan on the kind of tour they would like to serve; family cabins for those men who



prefer to continue family life aboard ship; integrated planning so that the annual budget, monthly and weekly budgets, become subject to negotiation so that all men aboard ship are aware of economies and excesses; restructing of the status and protocol system to honor the more informal working relationships between officers and crew.

Process Design vs. Design-By-Objectives

It is important to specify some of the differences between the programmatic, linear approach to design of schools and a multi-option, process-oriented design approach. To summarize, design-by-objectives presumes to understand at the outset the appropriate categories of analysis. Namely, it proceeds as if adjustments in the organization properties of an institution can be made on the basis of theory and at a high level of abstraction. They suggest that design is concerned with

philosophy of education, not with the provision of coffeepots for teachers lounges. Process design begins with the examination of everyday activities and the opportunities for intervention that improve performance of these activities suggests. The process design approach does not proceed from abstract objectives drawn from an ideal realm, but begins with concrete implementation possibilities which are already latent within the system.

Clearly, there are important ways in which the school environments have already been improved through application of linear design strategies, e.g., reducing noise transmission, augmenting adjusting lighting level managing traffic volume. By their very nature, school environments may be establishing a field of generic designs which are in the end, counter-productive.

While general designs fulfill our desire for clarity and order, they also bring with them a set of social expectations and behavioral norms. Through this process the environment shapes the everyday, ongoing character of the school. The more detailed the provision of these stereotypes, the more difficult they are to influence or change.

PROCESS-DESIGN

TRADITIONAL DESIGN	PROCESS DESIGN
Basic ideas and concepts.	Establish direction for growth.
Specification of objectives.	Search for free and open space.
Programming with restrictions.	Experiment with alternative social and technical design.
Execution according to role-prescriptions.	Formulation of an appropriate design process.
Integration of programs.	Cyclic evaluation.
Find Solution.	

Design-By-Objectives

In the traditional approach to design, the following methodology unfolds as a seemingly inevitable organization of planning activities. Each different professional specialty has developed its own terminology and problem definitions geared to secure a clear conception of their respective responsibilities and seeing to improve the environment.

1 First: Specify goals and objectives for school facilities. Traditional design methods specify goals as if they can be known in advance based on universal assessments of human needs. A data base for these posited objectives has usually been assembled from data collected in a wide variety of circumstances and not developed in response to a particular feature, institution, culture, or situation.

2 Second: Identify constraints and items. Once ideal objectives have been laid out, the traditional

design project calls from those involved lists of all their program requirements along with any special, economic, and social constraints which have to be taken into account by the design for achieving the objectives.

3 Third: Formulate individual subprojects or design tasks according to traditional role descriptions. Linear project management models attempt to lay out relationships between the various work tasks in elaborating the design project. These task structures, respect, and derive their form from, the traditional divisions for fields of specialization--engineering, architecture, social science, economics, curriculum, and so forth.

4 Fourth: Prepare framework for integration of the results of each proposed task into a final design and develop a suitable management system. The traditional design project then proceeds according to these role prescriptions which have been defined outside the influence of the particular instance involved. The design arrived at in this fashion reflects more the distinctions between the professional contributors and the manner in which work was divided than any needs of the situation being designed for. While this may seem a logical way to divide work, it is not necessarily suggested by or congruent with the requirements of the situation. In fact, more often a great deal more work is contemplated than might actually be needed to correct the deficiencies of the situation; this redundant work is undertaken to fill out the complement of professional claims on expertise.

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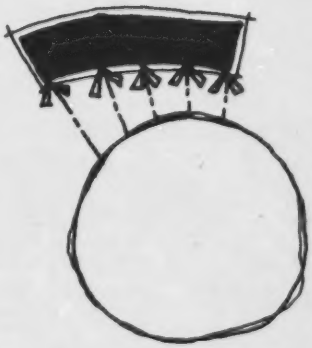
5

Fifth: Execute the project in a linear fashion. Since the ideal project plan has been laid out in a step-wise linear fashion, the work itself proceeds in linear sequence from conceptual design, to engineering, to conception of the respective roles of distributors, suppliers, to producers and manufacturers, to constructors and assemblers...

This model of design and implementation process is appropriate for the development of well understood systems functioning in stable environments. That is, in situations where programmatic requirements are not likely to change appreciably between the time of conception and the time of completion of the designed product or environment. The very nature of the question of education, however, suggests that the claims made of the school environment are always changing in response to the social context.

Process Design

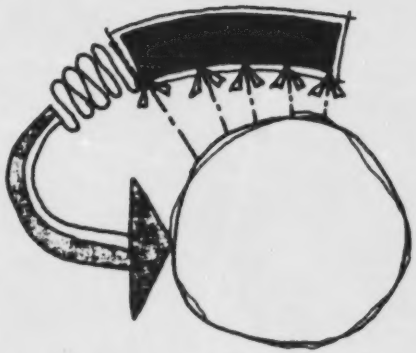
The fundamental quality of process design is the specification of design features based on initial actions taken in specific settings related to, if not the actual, target setting. In this sense, it is analogues to research-in-action where a lore about "what might work" is accumulated in the process of trying to do something responsive. Parallel, often not directly related, efforts to improve school situations are likely to prove important in discovering which goals and objectives are really worth a significant design effort.



Such attempts at meaningful action act as probes to reveal the qualities of the decision structure, what are current and compelling justifications, and what kind of information one has to amass to support evaluation of design results. A process design project might proceed something like:

1

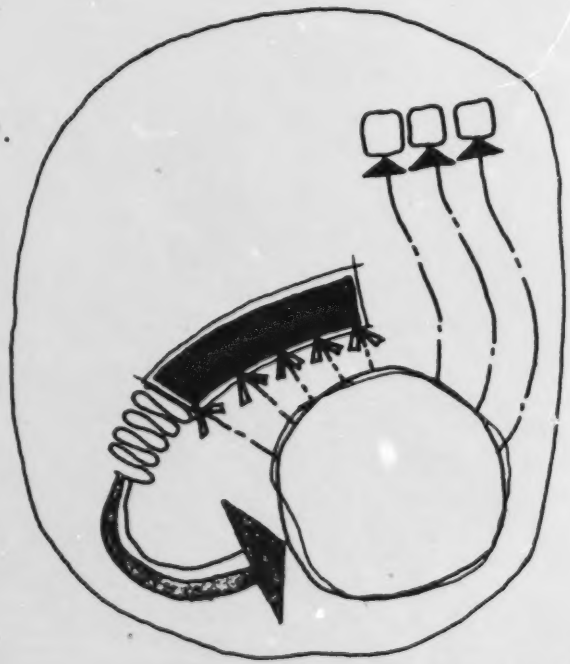
First: Identify a direction for development. Instead of articulating specific goals and objectives for the outcome of the design, the process-design approach merely articulates a direction for growth of the concept. Starts can be made virtually anywhere within the system. This implies an "open systems" approach, since the design process is part of the ongoing system and not a part of the special province of design specialist. Design initiatives, effected in "real time", frequently reveal important factors as the process unfolds which couldn't be anticipated. New factual information and design hypotheses are produced based on observation of ongoing interaction. Sometimes this interaction is provided by orienting the design process to the concrete need to remedy or upgrade existing situations--such as in the process of rehabilitating schools for earthquake code violation. In design situations where test schools are not available, various forms of simulation can be used to provide concrete settings for refinement and elaboration of the initial design



direction established. It makes design and redesign a constant activity and high priority.

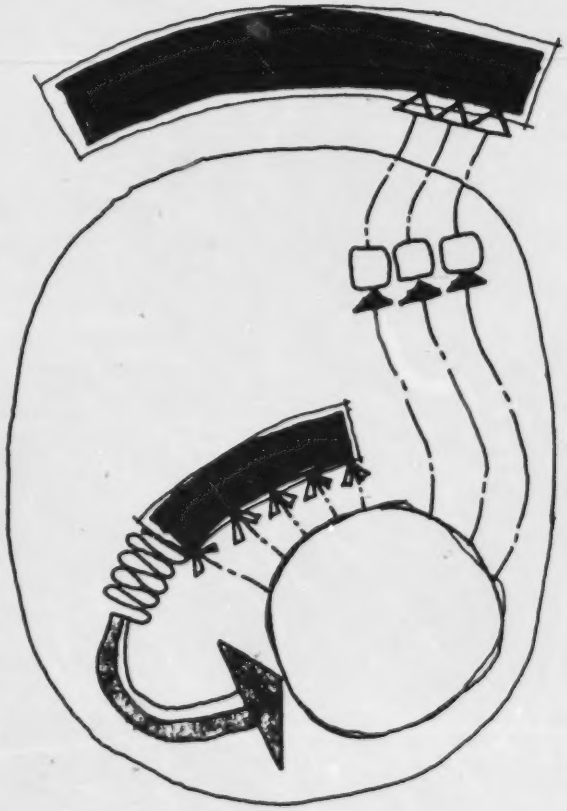
2 Second: Search for free space. In contrast to lists of constraints which limit the creation of an ideal environment, the process design approach attempts to look at constraints as opportunities for possible design interventions. The search looks behind, around, over...accepted limitations to discover where significant modifications might possibly be made to a system. This search is made knowing that in almost every system at any moment, every part or feature that one can think of to look into appears to be complete. In organizations all systems tend to look as if they are whole and self-formed. Inar Thorsrud has suggested "There is more space between the the forbidden and the prescribed than one thinks". The discovery of a small opening within a system can lead to radical, albeit safe modifications of the system as a whole. A chain reaction of possibilities and improvements can be set in motion with one successful small modification. The process design approach suggests that these starting points are unique openings suggested by interacting with the system and not by renewing it from above.

One may seize upon several starting points in parallel, suspending judgment long enough to acquire fresh, context-specific data whereby to



eventually select new points of entry into the system which promise to produce the most catalytic and self-propelled set of consequences. You do not need a master-plan.

3 Third: Experiment with alternative designs. The quantatively and qualitatively better results expected from the process design approach are dependent upon the design alternatives generated in response to constraints, rather than being dependent upon the analysis of goals and constraints in design-by-objectives methods. The process design approach hinges upon the participative invention of design alternatives which have the effect of opening up a system which seems complete. Those design alternatives are produced collaboratively by those in the system and the designers. Such design alternatives are arrived at through iterative demonstrations where their effectiveness is exemplified e.g., such as the concept of a "school-within-a-school. The process designer evaluates the relative potential of such circumstantially-derived alternatives in relation to the further suggestions they engender. One does not need to review them according to the contributions they make to some ideal set of standards or requirements.



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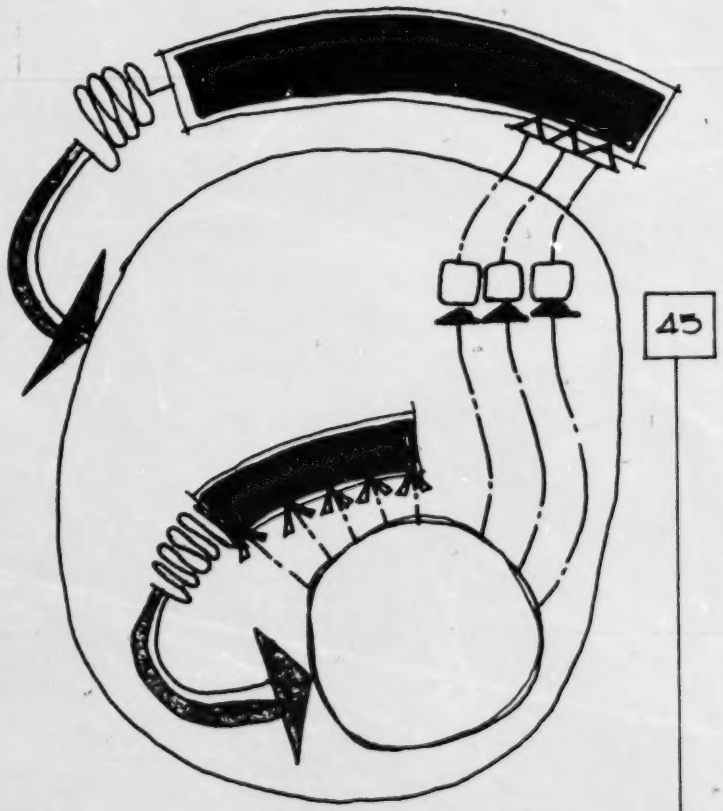
Fourth: Develop a design process. A design process is postulated based on the learning acquired in the initial design probes. Actions are undertaken to try alternative solutions in several locally defined situations with those organizational units which were discovered to be especially salient. These subprojects are integrated by incorporating their results in a decision-making framework which focuses attention on the kinds of information needed to make decisions as they arise. Managerial concerns are to assure the basis for acquiring information to support choices which will be available, not to set up and validate objective measures and formal selection criteria.

5

Fifth: Undertake ongoing operational assessments. An important part of the process design approach is to structure means for obtaining feedback and evaluation as an aid to the ongoing process of implementation. This means that the data needs and information requirements have to be sensitive to the timing of the implementation process. Consider in this fashion, data requirements become part of a process of cyclical design development. Several possible design alternatives are formulated leaving the execution to the locallingg initiated actions. Through these actions, discovery is made of still further issues for inquiry and the suggestion of



design alternatives. Assessment, then, takes the form both of evaluating the effectiveness of particular design alternatives and diagnosing further opportunities for introducing modifications.

6 Sixth: Explore the context and extend process design through generalization and abstraction. The process design approach attracts to specific incidences of success the interest and larger involvement of key personnel in the decision making structure of and organization of institutions--in this instance the school system. As process design cycles are iterated in the discovery of local solutions, abstractions of actions indicative of more general principles or more generalized application are produced. This can be expected to attract top staff interest also. Unlike normative parametric studies which might employ a whole school system in order to isolate a single problem, the process design approach would begin with a small number of schools, even a single school.

To illustrate, feasible approaches to local problems are identified, these candidate solutions are next tested and then revised with local participation in second or third iterations leading to a locally precipated sense of power and competence. The new-found feeling of effectiveness is instrumental in the discovery

of still other opportunities for change which can be designed and tested locally on a voluntary basis in a small number of additional cases.

The process-design team is established to utilize the introduction of these local solutions as demonstration projects, with their effectiveness observed by decision-makers in the system. Rather than demonstrating a predetermined pattern or design concept which would be useful as is on all or similar schools, the purpose of these liaison communications would be to explicate the reasoning behind the process design projects. A range of feasible solutions to a series of local problems are illustrated, thereby encouraging the application of the process design approach to a wider range of opportunities; not the transfer of specific solutions. The more people that observe process design, and note its manageability on a small scale, the greater the likelihood of willing adoption of the framework. As the body of "for instances" increases in size, one can begin to generalize from the experience. Both long-range policy implications for change procedures and specific variables for research can be derived from the process design action projects.

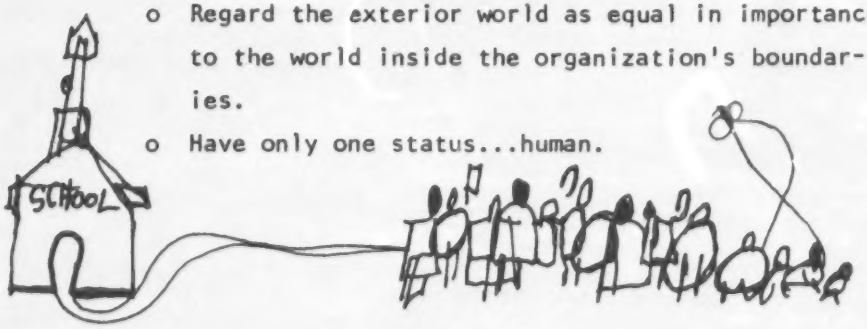
CHAPTER 7

THE CHANGE PROCESS

Looking at Change

Organized society has become so entrenched in the traditional organizational setting of impersonal, class conscious, authoritarian, rigid systems that it often ignores the fact that people all around are crying out for institutional change. There is no better justification to consider change than the fact that people want it. Organizations simply work better when employees are allowed to influence organizational growth and development. Skibbins (1974) cites a list of items which identifies an organization in a state of change. The following exerpts should suffice to establish what is meant by humanizing rigid systems.

- Expand individual rights to commit the organization.
- Commit and encourage people at all levels to continuous education programs.
- Regard the exterior world as equal in importance to the world inside the organization's boundaries.
- Have only one status...human.



- o Concentrate on designing deliberately open-ended systems.
- o Regard power and authority as products of a changing concensus of all participants.
- o Be an experienced and regular buyer of outside expertise.
- o Establish open and uncontrolled communication.
- o Develop wholly new goals to adopt for the future.

Most of the items cited above do not involve large capital expenditures, but they do require firm commitment and determination on the part of all in the organization. What better reason can one cite, to justify change, than to make the organizational environment more meaningful and rewarding for those who spend a substantial part of their daily lives in it? Scientific and technological advances are now moving at a pace so fast it boggles the mind. Growth will occur mainly in those organizations which take advantage of the innovations these advances have to offer.

This idea of humanizing the school system is an important one because it begins to address the root causes of the present problems of the school system. Too often efforts at change in the system are directed at the physical effects of the education process, and so just end up as another go-around at renovation of the schoolhouse. As has been mentioned, the school as we know it today is simply an over-specialized end-form. This end-form is a result, not a cause, and by direct-

ing change efforts at this external concrete from remarkably little is accomplished toward alleviating pressures throughout the system.

The effort toward radical change clearly has to go beyond this external end-product and look back to the more generic forms of the educational system. Today most all major efforts toward modification of systems, including the school system, begin from a 'state of the art' viewpoint. This perspective essentially presumes that particular areas of concern, like education, have to become more specialized as they develop. This state of the art view adequately serves to define and alter the specialized end states of the school system, but because it is specialized it cannot expose the root causes of those end states. The obvious need, then, exists to go back to increasingly more general, generic, states that can begin to expose the opportunities for radical change in the school system. It is possible to define these increasingly more generic states of the school system as follows:

- o Features of Design: Specific elements that in total results in specific individual schools.
- o Designs: Specific individual schools.
- o Patterns for Designs: General spatial patterns that describe the design of different settings.
- o Basic Educational Settings: Concrete means of organizing the system in time and space.
- o Generic Institutional Paradigms: Generic models from which specific goals will grow.

- o Institutional Objectives: Practical interpretations of, or concrete means for attaining goals.
- o Espoused Goals: Visions of the organization's present and future states valuable enough to work toward.
- o Root Metaphors: The most basic styles of action and behavior which serve to totally define and guide the over-all direction of and motifs that develop in the system.

The move back to the more generic states of the system will expose the school system as being a process rather than a product. This change of perspective is important in opening up the opportunities for radical change since, as with all organizations, it is the underlying processes, their form, and the direction they move that serve to determine the end product which is so visible to society. From the increasingly generic states of the school system listed above, it becomes quite clear that those seeking real change in the system have to go back again to redefine both the goals and the root metaphors that will guide any change.

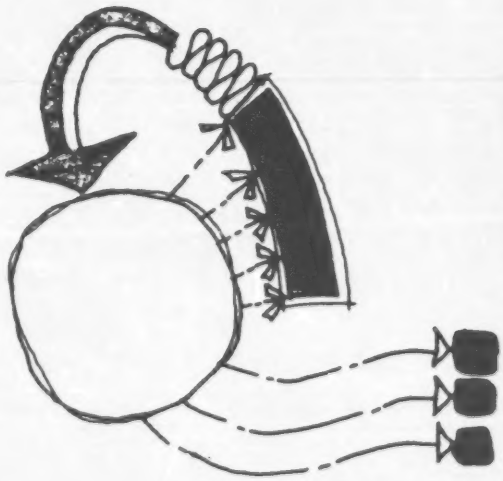
In as much as the present school system has been defined and developed on the basis of a dehumanized Model I metaphor, the logical orientation for change of that system would be to move to a prohuman Model II metaphor. With that new root metaphor as a guideline the obvious next step is for a redefinition of the espoused goals of the school system. The original goals

of the educational system here in the U.S. were perhaps clear at the outset some 100 years ago, but have since lost their clarity and have become nebulous or outdated at best. This almost non-existence of goals means that specific school settings and paradigms have been implemented without reference to any larger overall criteria.

The inability of the school system to define, re-evaluate, and clarify its goals on an on-going basis has meant that decisions about, and actions in, the system have, in effect, centered around the concrete end-product form of the system. Clearly it is this reliance on guidelines that originated in that concrete manifestation of the system which has led to the conflict between the social world of the students, and the formal institutional world of the school. The immediate need, then, is for the school system to begin the development of radical goals for the future, which is in turn, the first step in beginning the change process.

Goal Consideration

New goals are necessary in order to create more valuable, rewarding and profitable organizations. New goals could involve the entire organization in their formulation and stimulate unprecedented interests and innovations in employees because they will feel as though they are part of an exciting, new management revolution. Radical organization change will be more effective when objectives are specific and can be understood by everyone, when the objectives are quantifiable



in both space and time, and when goals are both realistic and difficult (Skibbins).

An excellent example of assuming the challenge of a new goal occured in the late 1950's when NASA was working around a series of basically sound goals aimed at developing complete capability in space. The goals were certainly broad enough to allow for continual progress within the agency, but at the same time they remained too ill-defined to provide a basis for on-going evaluation of progress and results. In the early 1960's John Kennedy commited NASA to this specific goal: "Put an American on the moon and return him safely before the decade is over". As subsequent history has shown, this goal was enormous but, at the same time, attainable. This goal-placing a man on the moon - lies at exactly the same order of magnitude that our educational systems today must be working to develop goals for their own future.

The increasing rate of change within our society has created a gap between the major adverse conditions of the society and the responses of our social institutions to those conditions. This gap is reflected in the social problems facing children today (divorce, alcoholism, suicide, drug abuse...). The RISE Report states that: "Clearly these conditions stem largely from society's inability to find effective solutions to the very problems it created". The problem then is to define large scale goals for the future, reflective of changes in the society, for the educational system.

The often mentioned gap that exists between the school system and the social system is essentially a result of the dissimilar rates of change of the two systems. It is obvious that recent change in the social system has been taking place at an ever increasing tempo. Change has also occured in the school systems, as it does in all systems, but at varying rates. The widening gap between the school system and the social system clearly exposes these varying rates of change that can occur in organizations. It is, therefore, possible to distinguish between three large categories of rate change: minimum (occuring in homeostasis), modest (occuring in adaptation), and high (occuring in continuous radical change, transformation or evolution). These three categories are also descriptive of the characteristics of most human organizations.

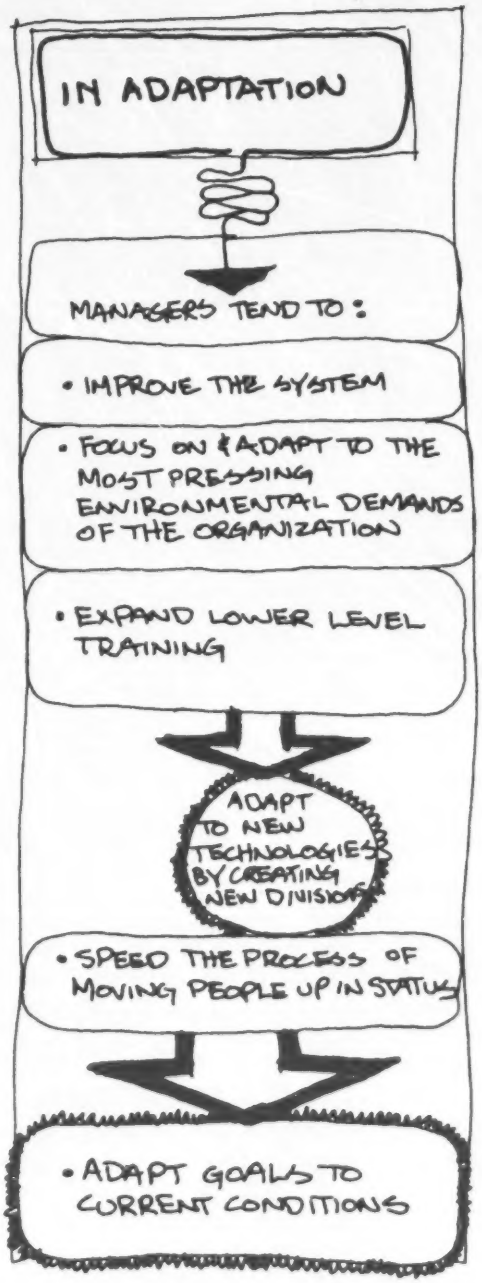
Change in our educational system has, up to now, remained at the rate of a homeostatic organization - minimum. Goals which may have been dramatic at inception are now seen as ill-defined, or else short-ranged. The school system makes only minor changes, and does so only in response to external forces. Its structure is both authoritative and hierarchial in nature. Like all homeostatic organizations it tries simply to keep internal and external forces in equilibrium. Consistent with the nature of a homeostatic organization, it maintains a rigid structure unable to react to change. The general organization works effectively as long as its overall environment is stable. During periods of

IN HOMEOSTASIS
MANAGERS TEND TO:
• TIGHTEN THE SYSTEM
• AVOID & REJECT OUTSIDE FORCES
• LIMIT EMPLOYEE EDUCATION
RELY ON AND EXPLOIT AN OLD TECHNOLOGY
• SET UP A CLASS STRUCTURE
• PURSUE TRADITIONAL GOALS

high rates of change, as we are now experiencing, the homeostatic organization comes under immense pressure from outside forces. Compatibility with the changing external social structure requires that the school system drop its traditionally limited goals and move on to new organizational structures and purposes.

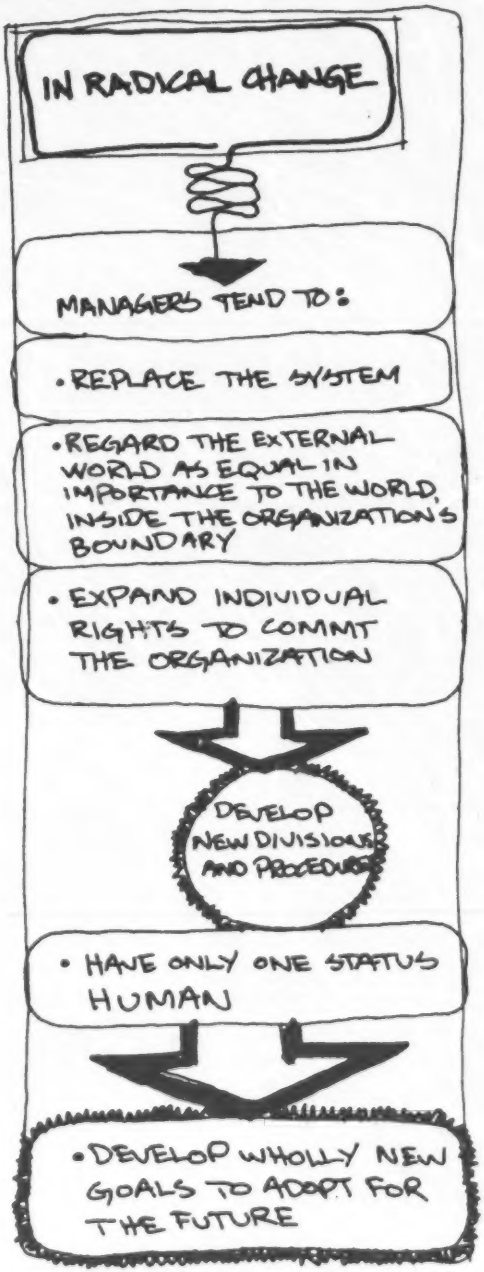
Very few public educational systems today have been able to broaden their goals and modify their structure to move from homeostasis to adaptation, the second level of organizational change rates. Here the systems are characterized by medium change rates, and tend to define goals that are broader in scope than those of homeostatic organizations. Adaptative organizations are able to face up to rapidly changing conditions in external market systems. It is a stage in which organizations are able to maintain their positions on an on-going basis within a highly changing condition. It is a trait common to human beings and so begins to develop in adaptative organizations a more prohuman structure.

One major problem with the homeostatic organization and with the educational system today is that it inevitably is struggling to catch up with society. Its goals and decision structures hinder it enough to produce a widening gap between itself and societal changes, which eventually leads to its failure. The second organizational condition, adaptation, doesn't have this problem because its goals and decision structures are based on medium rates of change. However


IN ADAPTATION
MANAGERS TEND TO:
• IMPROVE THE SYSTEM
• FOCUS ON & ADAPT TO THE MOST PRESSING ENVIRONMENTAL DEMANDS OF THE ORGANIZATION
• EXPAND LOWER LEVEL TRAINING
ADAPT TO NEW TECHNOLOGIES BY CREATING NEW DIVISIONS
• SPEED THE PROCESS OF MOVING PEOPLE UP IN STATUS
• ADAPT GOALS TO CURRENT CONDITIONS

adaptive organizations are formed and modified by social change and, although viable entities, they remain simply adaptive. The third alternative is for organizations to be based on extremely high rates of change. Such organizations are characterized by their continual evolution or metamorphosis from one form to another wholly different one, while retaining their same identity. Inevitably they are fluid open systems of a Model II nature. Their goals develop from their structure and are extremely broad and far reaching. By defining their goals in this manner these organizations create their own future rather than having to react to change around them.

Another look at the NASA example will clarify these implications for educational systems. The vehicle enabling NASA to move away from piecemeal stabs at space exploration was its synthesis of a difficult goal, broad in scope, reaching far into the future. By doing so NASA was able to create for itself, and the rest of the world, much of the future progress in space. In this same sense educational systems must define for themselves the far reaching goals that will create the future progress in education. The goals can't be small step by step approaches because that is a process of attaining, not of defining goals. Goals have to be an end, that is, somewhere out there beyond what exists today. By inventing and agreeing upon challenging goals that are far reaching in scope ('out there'), the educational system will define a basis upon which to


IN RADICAL CHANGE
MANAGERS TEND TO:
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• EXPAND INDIVIDUAL RIGHTS TO COMMIT THE ORGANIZATION
DEVELOP NEW DIVISIONS AND PROCEDURES
• HAVE ONLY ONE STATUS HUMAN
• DEVELOP WHOLLY NEW GOALS TO ADOPT FOR THE FUTURE

evaluate itself and its performance on an ongoing basis.

Taking the Alternatives Seriously or Adopting the NASA Mentality

One of the most important aspects of NASA's success in putting a man on the moon is that, at the time the decision was made, it was a technologically impossible task. In the late 1950's the overall perspective of the project was impossible. However, by seriously accepting that perspective and developing the organization so it could overcome the hurdles, in turn changing that perspective, NASA was able to put men on the moon. Clearly then, what happened was that the goal while accepted as radical, and perhaps even as impossible, was at the same time, considered a serious viable alternative direction for NASA to take.

This "NASA Mentality" that sees radical alternatives as viable goals is the attitude that must be taken by our educational systems in developing their goals for the future. Any goals that are so broad in scope and far reaching will inevitably stir up feelings of impossibility and futility. The radical goal will naturally challenge inborn resistence to change. It will attack feelings of stability and the sense of the status quo. It substitutes the discomfort of new processes for the pleasure of learned responses. When these goals are developed for education they will inevitably destroy the images of education people have acted upon for years. But these reactions are a product of the social structure from which the present educational

system grew, but with which it hasn't grown in the recent past. As such it must be recognized as homeostatic in nature.

It is quite apparent then, that the present school systems must begin to move toward changing the system to an adaptive one and eventually to one characterized by continual radical change.

Step One:

Implementation of large scale radical change requires change in the organizational structure. In order to determine the structure best suited for such goal achievement and to assess the probability of achieving these goals in the school system, it is necessary to first conduct a change feasibility study - "a coordinated complex of studies leading to a single go/no-go decision on whether to attempt radical change in a given organization". (Skibbins)

To facilitate the feasibility study, the school system must determine how it now performs in terms of:

- Innovative ideas, services and procedures
- Method of handling work load
- Ways of improving interpersonal relationships
- Forecasting future growth
- Cultural understanding of people associated with the system
- Policy measures associated with school personnel
- Motivating employees and community members with exciting future goals

- o Regularly employing the use of outside expertise to keep abreast of modern technology
- o Using representative task forces (all concerned parties) in the solution of educational problems
- o Economic situation of the school system

Results of an evaluation of these elements of the system on a very poor to excellent scale will provide an immediate simple appraisal of the system and which later can be used to set up practical programs for the change process.

The feasibility study should involve recognized experts both inside and outside the school system. These experts, drawn from all major managerial and social disciplines, must be required to provide a broad prospectus for change of the system. The study must provide both a qualitative and quantitative overview of both the positive and negative capacities for change in the system. The study must spell out existing resources within the system in areas such as leadership talent, administrative talent, and previous experience as well as providing the basis for a go/no-go decision on the radical change. Constraints such as unions, ongoing needs of the students, and the already overdefined positions of specific individuals must be recognized. Finally the feasibility study must begin to locate and identify places in the system where the change process can be initiated.

Step Two:

Based on the go/no-go results of the feasibility study the next step is to initiate a change readiness program to remove obstacles and change the notion of systemic work. Initial input to the readiness program will come from the information generated by the feasibility study. A primary concern of the change readiness program is to isolate and begin action to remove key blocks and obstacles to change within the organization. Information uncovered through the feasibility study should provide a substantial basis toward that end. Attention must be focused early on these blocks to provide for change in areas of highest concern to the personnel rather than in areas which affect relatively few in the system.

It is important that the change readiness program be structured to begin quantitatively evaluating future requirements and progress made in the specific areas where blocks exist and in the general areas that are sources of radical change. By devising scales to quantify and measure this progress and the remaining social and school gap, the effort toward instituting a change system will remain in the forefront of the attention of the system members. Evaluation should be aimed at the following areas:

- o The specific ennumerated blocks within the system
- o Information availability
- o Innovation usage

- o System image--internal and external
- o Positive and negative administration-employee relations
- o Stream of work process improvements
- o Managerial confidence and usage of external experts
- o On- and off-the-job education for employees
- o Interdepartmental versus separatist practices

Finally, the change readiness program in combination with the feasibility study should provide:

1. Areas needing correction.
2. Priority ratings for each area.
3. Probable time and budget for each task.
4. Composition of inside forces and outside consultants required for success.
5. Date reasonable readiness should be achieved.

Step Three:

New goals require organizational concensus, clearly communicated and agreed upon by staff, client groups and community, in order to sustain continuous feed-back. The goals must be clearly derived from the school system as it exists today: its people,technology and other specific realities. Although the goals are spinoffs from the present organizational system, they must remain clear and in the open be a concensus of everyone in the system. "Full provisions must be made for clear message sending as well as for a wide and honest variety of techniques for getting feed-back i.e., discussion groups, surveys, question processing, and so on". (Skibbins) It is im-

portant to define objectives in specific terms that are easily understandable by everyone. Radical change is more effective when goals are extremely difficult (such as placing a man on the moon) and when they are quantifiable in both time and space. Progress toward new goals should be measurable on a daily basis.

Step Four:

Primary to an effective change effort is the establishment of a broadly based change system team. Too often organizations attempt to promote internal change through the use of in-house experts alone. Clearly, this approach is not only limiting, but in a sense, leads the organization to an inbreed reinforcing of its present structure. The organization, in such an in-house effort, is attempting to change itself by using the skills it now uses to run its system. In any change system, then, the use of interdisciplinary outside experts is mandatory for success.

The necessity for outside experts points out the obvious need for the change system team to be composed of recognized experts both internal and external to the organization. The internal members should consist of administrators who will assume direct responsibility for the project-planners and organizational specialists. The external members should consist of a change system advisor who takes responsibility for the change technology as well as change systems designers and communication specialists. The change team will be formed prior to the feasibility study, and will manage the

change from that point through delivery of the changed system. The responsibilities of the change team include:

- o Change feasibility study
- o Change readiness implementation
- o Change system design and operation
- o Internal and external communication and control of task forces applying change
- o Maintenance of a time schedule
- o Final delivery of the results

The construction of the change system team is critical to the success of the change effort. The entire change effort is an attempt to radically change the structure and direction of the organization. As designers and managers of this change, the change system team is required to innovate an entirely new system to use the organization's present resources. The effort is clearly of major proportions and, as such, requires that these experts be people with genuine experience in projects of this scale. An example is the team formed to oversee the restructuring of New York City's financial problems, referred to as "Big MAC". The best experts and technology must be collected from across the nation, Big MAC style, to form a basis for the radical change of the school system.

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Step Five:

One of several definitions of a change system offered by Skibbins is of value here: "A change system accepts your whole organization, analyzes its components and resources, designs a wholly new organization

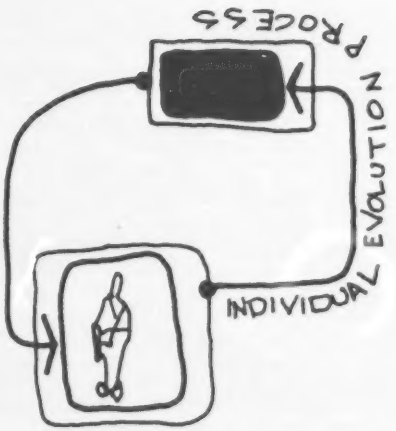
to make better use of the components, and finally, installs the new reality and absorbs the old ones". Recently, a new bridge built in West Germany, had to be constructed for the same site as an existing bridge without interrupting the use of that bridge. The Germans solved the problem by constructing a new bridge alongside the old, and moving it into place at its completion, all without disruption of the existing system for crossing the river. This very idea of building a movable system that can make the change from the old school system to the new without interrupting the services presently provided is exactly what is required of the change system.

The starting point for change is, of course, the present. As such, the change system necessarily inherits the existing organizations, and spins off the new one from that base. However, the change system must still be developed as a new mechanism. In order to facilitate the change, the new system must be innovative and unique. Although the new system will have to be derived from the old system, and the resources inherent in the old system, it must be distinctly different from the old system. Clear examples can be shown, such as:

- Departments might become interdisciplinary coordinating agencies
- Curriculum might become settings defined by opportunity-based programs

- o Programs might become individualized life-career augmentation
- o Objective evaluation might become process evaluation
- o Counseling might change from school oriented to a wholistic life orientation

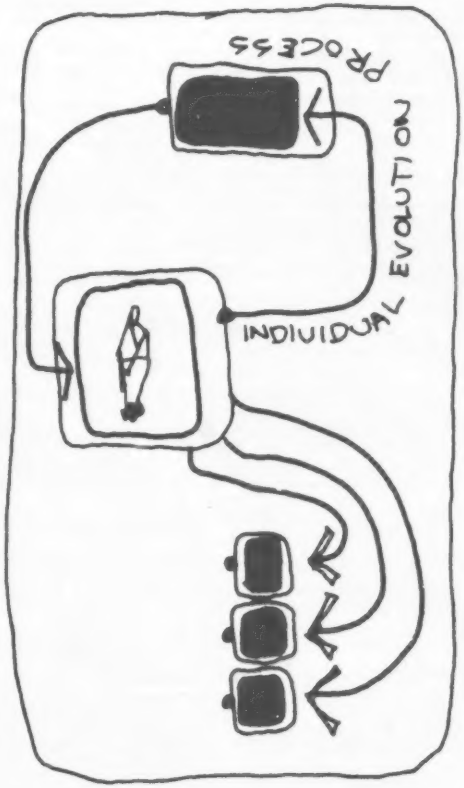
The basis of the change effort must, as previously mentioned, lay in the present school system. The change system must then be developed as both a catalyst and a system to guide the present organization to the goals defined. However, it should be apparent that the external forces acting on the school system are in themselves changing at an accelerating rate. This implies that any change system designed to work in this environment must itself be essentially indeterminate in its particular form simply to allow for its adaptation to the changing external environment. It remains, then, that a stable system will not take an organization from today's reality to tomorrow's reality. The problem is similar to that faced by the Wright Brothers who realized that to maintain the stability of an airplane, they had to design what in effect was an unstable device, which was controllable. Their success lay in providing the plane with the efficient computerized guidance system inherent in man's senses to deal with external changes. It is in this same sense that the school system has to move from its present rigid systems to one that is inherently adaptive.



Today the public school system exists as an organ-

ization that is best represented by a clock. The essence of this type of organization is that it is mechanical, has rigid inflexible interdependencies, has a centralized authority, and has a rigid pattern of interaction that is defined by its original design. The organization, because of its form is almost impervious to changes from external forces. It is exactly because of this mechanical clockwork nature, and its innate homeostatic orientation, that the educational system today is finding itself at odds with changes in the social structure. Quite clearly this type of organizational structure is totally unsuited to high rates of change as well as the tenuous development process mentioned above.

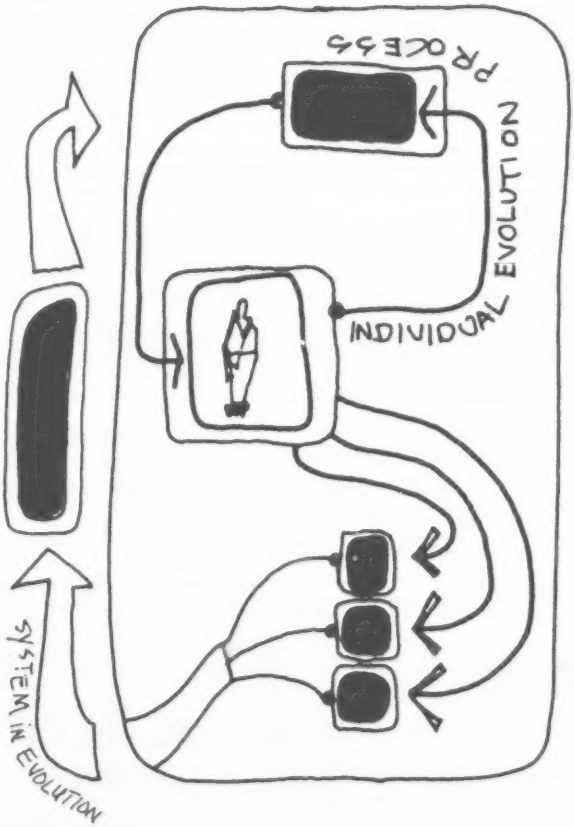
The best alternative to the clockwork model is the organic organization of the human type. These organizations are based on an image of biological growth with man as the model. They are characterized by tight network structure, a broad uniform distribution of authority which clusters as operations required, a complete freedom of interaction among its members, and channels of communication that are fully coordinated in a wide-open system. The organization is open-ended in its ability to adapt to and promote change in the external environment. As with the Wright Brother's airplane, the organic organization is a basically unstable system with an "artifical intelligence" which acts as its guidance system. It is this organizational consciousness, or artifical intelligence, that is the underly-



ing principle of the organic organization.

It is the change from a mechanistic clockwork organization to an organic one that is the central element in structuring the change system for the school system. Gerald Skibbins clearly states that development of this type of system will mean "adoption of new information and new skills. The spread of committment and responsibility in a network, the development of goals through horizontal interaction, a committment to excellence with knowledge gained 'outside' necessary to being skilled at your job, and an outward looking management that self-actualizes its people". The initiation of this change occurs with the development of a change system team that outlines the feasibility of the change and helps the organization to define its innovative goals in the future.

Once the change has been initiated the change system must begin to guide and initiate change programs necessary to gain the support of other hierarchies in the organization, and those related to the organization. These other hierarchies could involve all employees, operations and line management, clients, community members and users of various kinds. When the decision to activate the new expansion goal has been made, it would be necessary to inform all of these "concerned others" as to what was happening. Essential requirements of successful change would be to gain their support, solicit their ideas and counsel and to win their full approval of the total change system effort. An effect-



ive use of organization employees is to involve them in task forces..."to break down interdepartmental walls at least temporarily and to allow new concepts and programs to be thoroughly evaluated...Once final plans are agreed upon, the task force can fit them into the organization and make them work better than any management edict could" (Skibbins). The change team would continue to design and monitor each phase of the new structure as well as set a timetable to help it meet the prescribed schedule of events.

Step Six:

As with the other steps in the change process this final one, the change system application, is not clearly distinct from the preceding one. Many of the steps involved in formulating the change system are in fact the initial steps in its application. Further, both the direction and feeling of the change effort have been a continuous one involving at key points the entire personnel in the present system. The effort has been made to clarify the change process by dividing it into seven parts. The process itself, however, remains a continuous one that consistently refers ahead and looks behind to maintain that important continuity.

It is possible, however, to outline at this final stage a limited list of guidelines for application of the change system:

1. The effort towards a specific goal at a specific date must be made clear.

2. Clarify the undefined path of the change process, and that present organization tools and procedures are insufficient for the change.
3. Separate the entire change team from present operations to maintain stability.
4. Start with small changes close to people's interests.
5. Plan direct routes to goals, but understand achievement will occur in other ways.
6. Use healthy parts of the present system to utmost advantage.
7. Intensive self-improvement of the personnel in the innovative areas must expand continuously.

Finally, it is important, at all times, that lines of communication be kept open. A successful change effort requires that the present organization be intricately tied to the new change system being developed. This means that not only must the new system be an organized outgrowth of the old, but that a unified organizational perspective and attachment must be created between the old and the new until the one supplants the other.

RADICAL CHANGE MODEL
Model II
Mixed Modes
Model I
Root Metaphor
Espoused Goals
Institutional Objectives
Generic Institutional Paradigms
Basic Educational Settings
Patterns for Designs
Designs
Features of designs
ASPECTS of management
ASPECTS of design fields
Skills
Self-esteem
Work for Environment
Communication Skills
Flexible Tenure
Career Education
Decision Skills
Effective Reviews
Family School
Neighborhood School
Factory School
Corporation School
Self-Designed Programs
Flexible Time
First-Hand Learning
Parent Involvement
Law
Budget
Format
Population
Work/study
Career Contracts
School Within School
School / Shopping Center
Home Teaching
Parkway School
Zoo School
Los Angeles High School
Mobile
Open Classroom
Open Stairway
Paint Colors
PHYSICAL SETTINGS
ADMINISTRATIVE MECHANISMS
CURRICULAR PROGRAMS
MANAGEMENT PRACTICES
MEDIA FORMS, MECHANISMS